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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,648	03/25/2004	Jody A. Swenson	5837.041	6101
30589	7590	10/20/2005		
DUNLAP, CODDING & ROGERS P.C. PO BOX 16370 OKLAHOMA CITY, OK 73113				
			EXAMINER DEB, ANJAN K	
			ART UNIT 2858	PAPER NUMBER

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EJL

<b>Office Action Summary</b>	<b>Application No.</b> 10/808,648	<b>Applicant(s)</b> SWENSON ET AL.	
	<b>Examiner</b> Anjan K. Deb	<b>Art Unit</b> 2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 7, 9, 16, 18-20, 25, 28 and 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 10-15, 17, 21-24, 26 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/07/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. Examiner has not considered non-patent literature publications cited in the information disclosure statement as copies of these references were not available. Applicant is requested to provide copies of all non-patent literature publications listed in the information disclosure statement including the date of these publications.

### ***Election/Restrictions***

2. Applicant's election without traverse of claims 1-6, 8, 10-15, 17, 21-24, 26, 27 in the reply filed on 09/26/2005 is acknowledged.

Claims 7,9,16,18-20,25,28,29 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group of invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 09/26/2005.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 8, 10-13, 17, 21-24, 26, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart (US 5,315,232) in view of Sasaki (US 3,846,700).

Re claims 1, 10, 21 Stewart discloses electric-field meter for measuring at least one of a magnitude and polarity of an electric field, comprising a housing (weatherproof electronics enclosure 3)(Fig. 3), an electrode assembly (21,22) selectively exposed to the electric field, a shield assembly 26 for alternately covering and exposing the electrode assembly to the electric field, movement assembly having a source of motive force (Motor) and a linkage operably connected to one of the shield assembly and the electrode assembly for alternately covering and exposing the electrode assembly to the electric field (Fig. 5), a position detection assembly (optical shaft encoder) (column 16 lines 20-56) for monitoring the position of at least one of the shield assembly and the electrode assembly and providing a position detection signal indicative of the position of one of the shield assembly and the electrode assembly, a charge measurement circuit (Fig. 6) having an input receiving charge on the electrode assembly providing a charge detection signal indicative of the charge induced on the electrode assembly as the electrode assembly is selectively exposed to the electric field.

Stewart did not expressly disclose means for determining an average leakage current at the input of the charge measurement circuit, and means for generating a compensation current generally equal to and opposite in polarity to the determined average leakage current at the input of the charge measurement circuit, wherein the compensation current is supplied to the input of the charge measurement circuit.

Sasaki (US 3,846,700) discloses analogous electrostatic field measuring apparatus, comprising means for determining an average leakage current at the input of the charge measurement circuit, and means for generating a compensation current (neutralizing current) generally equal to and opposite in polarity to the determined average leakage current at the input of the charge measurement circuit, wherein the compensation current is supplied to the input of the charge measurement circuit (Fig. 2)(column 1 lines 35-42).

At the time of the invention it would have been obvious for one of ordinary skill in the art to modify Stewart by adding means for determining average leakage current disclosed by Sasaki and adding means for generating a compensation current generally equal to and opposite in polarity to the determined average leakage current for neutralizing leakage current.

Re claims 2-4, 11-13, 22-24, 26, 27 pertaining to means for determining and correcting zero offset-signal offset error, are considered obvious means as required for routinely performing instrument calibration.

Re claims 8,17 Stewart disclose flexible conductor bonded to the linkage of the movement assembly (motor shaft) for maintaining electrical contact between the movement assembly and at least one of the ground reference potential and the charge measurement circuit (see electrical wire connected to motor in Fig. 27,28,31).

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5. Claims 5, 6, 14,15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart (US 5,315,232) in view of Sasaki (US 3,846,700) and further in view of Uber (US 6,353,324).

Re claims 5,6, 14,15 Stewart as modified by Sasaki disclosed all of the claimed limitations as set forth above except compensation voltage source generating a programmable compensation output and a resistance in which the compensation current is developed wherein the compensation voltage source is digital-to-analog converter.

Uber discloses electronic measuring circuit including electric field measuring (column 1 lines 15-42) comprising leakage compensation circuit formed by capacitive digital to analog converter (Fig. 1, 19)(column 25 lines 38,39, column 26 lines 57-67). Uber further discloses compensation voltage source generating a programmable (controlled by  $\mu$ Processor 418,419) compensation output and a resistance  $R'$  in which the compensation current is developed wherein the compensation voltage source is digital-to-analog converter DAC1-3 (Fig. 33).

At the time of the invention it would have been obvious for one of ordinary skill in the art to modify Stewart as modified by Sasaki by adding compensation voltage source generating a programmable (controlled by  $\mu$ Processor 418,419) compensation output and a resistance  $R'$  in which the compensation current is developed wherein the compensation voltage source is digital-to-analog converter DAC1-3 disclosed by Uber (Fig. 33) for providing programmable leakage current compensation.

*Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hill (US 6,608,483 B1) discloses electric field sensor comprising sensor electrode and motor driven rotating shield (shutter) and position detection sensor (encoder sensor 209) (Fig. 2).

Kato (US 4,055,798) discloses electric field intensity measuring device comprising rotary grounded shielding electrode means driven by motor and alternating voltage inducing means.

Wang (US 20030030446 A1) discloses method for providing compensation current and test device using the same comprising calculating a simulated compensation value of a dynamic leakage current.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Anjan K. Deb whose telephone number is 571-272-2228. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lefkowitz Edwards can be reached at 571-272-2180.



**Anjan K. Deb**  
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10/18/05

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